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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/848,622

05/03/2001

Chi-Peng Li

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7856

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7590

12/16/2004

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EXAMINER

GEORGE, KEITH M

ART UNIT

PAPER NUMBER

2663

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/848,622

Applicant(s)

LI ET AL

Examiner

Keith M. George

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2663

*AE*

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 May 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-7, 10, 11, 13, 14, 17 and 18 is/are rejected.
- 7) ☒ Claim(s) 4, 8, 9, 12, 15, 16 and 19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1 Apr 04</u> | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 5-7, 10, 11, 13, 14, 17 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Abi-Nassif, U.S. patent 6,215,792, hereinafter Abi-Nassif.

3. Referring to claims 1, 10 and 17, Abi-Nassif teaches a system, device, and method for initial ranging dynamically adjusts the backoff window size used during a ranging and adjustment process in an attempt to maximize the probability of success outcomes during contention access (abstract). Abi-Nassif goes on to teach a flow chart in figure 5 showing adaptive initial ranging logic in accordance with a first exemplary embodiment of the present invention that uses the ratio R to adjust the backoff window size and ranging opportunity frequency. After beginning in step 502, the logic provides ranging opportunities and specifies the first backoff window size for collision resolution, in step 504 (sending a first back-off window to more than one of the plurality of users of the network). After determining the first probability of success outcomes (operational characteristic) in step 506, the logic provides additional ranging opportunities and specifies the second backoff window size for collision

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resolution, in step 508 (calculate and send a second back-off window based on at least one operational characteristic of the network) (column 7, lines 50-66).

4. Referring to claim 2, Abi-Nassif teaches the method described in reference to claim 1 above and also teaches that after determining the second probability of success outcomes in step 512, the logic calculates the ratio R in step 514. The logic then determines the new backoff window size (calculating subsequent back-off windows based on at least one operation characteristic of the network) (column 8, lines 9-15).

5. Referring to claim 3, Abi-Nassif teaches the method described in reference to claim 1 above and also teaches that the probability of success outcomes (collision rate) determines the backoff window size (column 7, lines 63-64).

6. Referring to claims 5-7, 11, 13, 14 and 18, Abi-Nassif teaches the method described in reference to claims 1, 10 and 17 above and also teaches to decrease the backoff window size if the system is operating in the underload region where the probability of garbled outcomes (PG) is less than 0.3 (maintain a collision rate of between .2 and .4). If PG is very large, for example, greater than 0.8, then the system is likely to be operating in the overload region, where it would be desirable to increase the backoff window size (maintain a substantially constant collision rate) (column 8, lines 33-47).

#### ***Allowable Subject Matter***

7. Claims 4, 8, 9, 12, 15, 16 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith M. George whose telephone number is 571-272-3099. The examiner can normally be reached on M-Th 7:00-4:30, alternate F 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Keith M. George  
9 December 2004



CHI PHAM  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800 12/10/04